

DIRECT TESTIMONY  
OF  
RANDY STEWART  
PIPELINE SAFETY ANALYST II  
SAFETY AND RELIABILITY DIVISION  
ILLINOIS COMMERCE COMMISSION

Illinois Commerce Commission On Its Own Motion

vs.

Peoples Gas Light and Coke Company

DOCKET NO. 12-0624

Citation for alleged violations of

Federal rules incorporated

By the Illinois Commerce Commission

Regarding general requirements

February 7, 2013

**WITNESS IDENTIFICATION**

**Q. What is your name and business address?**

**A.** My name is Randy Stewart. My business address is 527 E. Capitol Avenue, Springfield, IL.

**Q. By whom are you employed and in what capacity?**

**A.** I am employed by the Illinois Commerce Commission ("Commission") as a Pipeline Safety Analyst II in the Pipeline Safety Program ("PSP") in the Safety and Reliability Division. In my current position, I perform audits and inspections for the Commission's PSP to ensure that natural gas system operators in Illinois are meeting minimum federal safety standards prescribed by 49 Code of Federal Regulations ("C.F.R.") Parts 191, 192, 193, and 199, and by the Illinois Gas Pipeline Safety Act ("Illinois Act"). (220 ILCS § 20/1 et seq.)

**Q. Please describe your training and experience.**

**A.** Prior to my employment with the Commission, I was employed by the Phillips Pipe Line Company (currently ConocoPhillips) for over 29 years. My duties with Phillips Pipe Line Company included pressure testing, smart pigging, operating pump stations, operating products terminals, pipeline maintenance, installation and construction activities, welding, pipe fitting, emergency response, and various other duties. All duties and activities that I conducted were performed in a manner consistent with company, state, and federal requirements. Since accepting my position at the Commission, I have received extensive technical training at the Pipeline Hazardous Material Safety Administration ("PHMSA") Training and Qualification Division ("TQ") in Oklahoma City, Oklahoma, which is where state and federal pipeline safety inspectors receive technical education and training relating to the enforcement and interpretation of pipeline safety standards. My training at TQ has included subjects such as; PHMSA Public Awareness Program Effectiveness Evaluation; Public Awareness Program for Pipeline Operators; Safety Evaluation of Control Room Management Programs;

Safety Evaluation of Distribution Integrity Management Programs; Fundamentals of System Technology & Operation; Assessment Evaluation for Operator Qualification; Root Cause Analysis/Incident Investigation; Liquefied Natural Gas (“LNG”) Safety & Technology Inspection; Fundamentals of LNG; Pipeline Safety Regulation Application and Compliance Procedures; Corrosion Control of Pipeline Systems; Fundamentals of Basic DC Electricity; Fundamentals of Pipeline Corrosion and Cathodic Protection; Pipeline Failure Investigation Techniques; Gas Pressure Regulation & Overpressure Protection; Fundamentals of Gas Pressure Regulators; Joining of Pipeline Materials; Plastic and Composite Materials; Welding and Welding Inspection of Pipeline Materials; Fundamentals of Plastic Pipe; Operator Qualification; Safety Evaluation of Gas Pipeline Systems; and various other technical aspects of natural gas pipeline operations. In addition to my PHMSA TQ training, I have attended the Purdue University 44<sup>th</sup> Annual Underground Corrosion Short Course. I have worked as a Pipeline Safety Analyst for the Commission for 9 years as of August 1, 2012, and have a total of 38 years experience in the oil and gas transportation industry.

**PURPOSE OF TESTIMONY**

**Q. What is the purpose of this your testimony?**

**A.** The purpose of my testimony is to present Commission Staff’s (“Staff”) position. I am the investigator of record for the November 13, 2011, Peoples Gas Light & Coke (“PGL”) incident at 6652 S. Keating Avenue in Chicago, Illinois. In addition to conducting the on-scene investigation for the PSP, I have reviewed reports and supporting documents, and I created the Staff Report that lead to the Initiating Order in this proceeding. The Staff Report for the Initiating Order is attached to and incorporated into my testimony. (Staff Ex. A)

**REGULATORY AND ENFORCEMENT PROVISIONS**

**Q. What authority or jurisdiction does the ICC have in this matter?**

56 **A.** While I am not an attorney, it is my understanding that through the Natural Gas  
57 Pipeline Safety Act (“Federal Act”), enacted as Public Law 90-481, Congress  
58 mandated gas pipeline safety regulation by the United States Department of  
59 Transportation (“USDOT”) in 1968. The Federal Act provided for state pipeline  
60 safety regulation in states certified by USDOT. In 1969, the Illinois General  
61 Assembly passed the Illinois Act,<sup>1</sup> Public Act 76-1288. Subsection 3(a) of the  
62 Illinois Act<sup>2</sup> charged the Commission with adopting rules that are at least as  
63 inclusive and as stringent as the pipeline safety regulations adopted by the  
64 United States Secretary of Transportation, and required the Commission to seek  
65 federal certification to regulate pipeline safety within Illinois. Section 9 of the  
66 Illinois Act<sup>3</sup> required the Commission to prepare and to file with the Secretary of  
67 Transportation the initial and annual certification and report required by  
68 Subsection 5(a) of the Federal Act. The Commission has maintained certification  
69 since the 1970s, under rules codified at 83 Ill. Adm. Code § 590.10, et seq. The  
70 federal standards codified under 49 C.F.R. Parts 191, 192, 193, and 199 have  
71 been adopted by the Commission pursuant to 83 Ill. Adm. Code § 590, as  
72 required to maintain the Commission’s authority for enforcement of the Minimum  
73 Federal Safety Standards granted to the Commission under an agreement  
74 pursuant to Section 5 of the Federal Act<sup>4</sup> with the U.S. Department of  
75 Transportation Office of Pipeline Safety.

76 **COMPLIANCE RELATED ISSUES**

77 **Q.** Please describe the compliance related issues that initiated this  
78 proceeding.

79 **A.** I performed an investigation of the house explosion that occurred on November  
80 13, 2011, at 6652 S. Keating Avenue in Chicago, Illinois. My investigation

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<sup>1</sup> 220 ILCS § 20/1, et seq.

<sup>2</sup> 220 ILCS § 20/3(a).

<sup>3</sup> 220 ILCS § 20/9.

<sup>4</sup> 49 U.S.C.A. § 60105 (West 2012).

determined that the ½" diameter polyethylene ("PE") service line providing natural gas to 6652 S. Keating Avenue had breached the sewer lateral piping designed to remove waste from that residence, and was installed inside the sewer lateral piping for a distance in excess of ten feet before exiting through a 90° fitting. My investigation also determined that the natural gas service line was damaged by an electric powered sewer auger being used by the resident at 6652 S. Keating while he was attempting to clear a blockage in the sewer lateral. The damaged service line released natural gas which migrated into the residence. My investigation indicates that the natural gas combined with the atmosphere, and eventually reached an explosive level. That explosive mixture made contact with an ignition source, resulting in an explosion which caused injury to the occupants, destroyed the house, and damaged neighboring residences. During my investigation, I determined that PGL did not follow the procedures contained in the PGL Operating and Maintenance manual in effect at the time of installation, the PGL Operating and Maintenance Manual General Order ("PGL Plan") (Staff Ex. B), as required by 49 C.F.R. §192.13 (c) which states:

Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part.<sup>5</sup>

**Q. What procedures required by the PGL Plan, and pursuant to 49 C.F.R. § 192.13(c), did PGL fail to follow?**

**A.** PGL did not follow the PGL Plan Sections General Order 6.100 C.5 and General Order 6.100 C.6, dated 9-01-2006 (superseding General Order 6.100 dated 3-28-2005), which were the Horizontal Directional Drilling<sup>6</sup> procedures in place on May 7, 2007 at the time of the gas service piping installation at 6652 S. Keating.

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<sup>5</sup> 49 C.F.R. § 192.13(c); see 49 C.F.R. §192.605 (Procedural manual for operations, maintenance, and emergencies).

<sup>6</sup> "Horizontal Directional Drilling" is a steerable, trenchless method of installing underground pipes, conduits, and cables in a shallow arc along a prescribed bore path by using a surface-launched drilling rig, with minimal impact on the surrounding area.

106 **Q. What are the requirements of PGL Plan Section General Order 6.100 C.5?**

107 **A.** General Order 6.100 C.5<sup>7</sup> requires [REDACTED]  
108 [REDACTED]. However, the PGL Plan  
109 also states that [REDACTED]  
110 [REDACTED]<sup>8</sup> [REDACTED]<sup>9</sup> [REDACTED]  
111 [REDACTED]  
112 [REDACTED]  
113 [REDACTED]  
114 [REDACTED]  
115 [REDACTED]<sup>10</sup> [REDACTED]  
116 [REDACTED]  
117 [REDACTED]  
118 [REDACTED]  
119 [REDACTED]  
120 [REDACTED].

121 **Q. What are the requirements of PGL Plan Section General Order 6.100 C.6?**

122 **A.** PGL Plan Section General Order 6.100 C.6 requires [REDACTED]  
123 [REDACTED]  
124 [REDACTED].

125 **Q. Does 49 C.F.R. § 192.13(c) require PGL to follow the procedures located in**  
126 **the PGL Plan Section General Order 6.100 C.5 and 6.100 C.6?**

127 **A.** Yes, it does.

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<sup>7</sup> Staff Ex. B

<sup>8</sup> [REDACTED]  
[REDACTED].

<sup>9</sup> [REDACTED]  
[REDACTED].

<sup>10</sup> [REDACTED]  
[REDACTED].

128 **Q. Did PGL follow these procedures?**

129 **A.** No, they did not.

130 **Q. What was the result of PGL's failure to follow General Order 6.100 C.5?**

131 **A.** The failure to [REDACTED]  
132 [REDACTED], as required by General Order 6.100 C.5, allowed the PE gas service  
133 line to be installed inside the sewer lateral at 6652 S. Keating Avenue for  
134 approximately ten feet, eight inches before it exited a 90° fitting of the sewer  
135 lateral which it had penetrated. Following the procedure would have required  
136 PGL to [REDACTED]  
137 [REDACTED] would have ensured the  
138 discovery of the natural gas pipeline within the sewer lateral [REDACTED]  
139 [REDACTED].

140 **Q. What was the result of PGL's failure to follow General Order 6.100 C.6?**

141 **A.** Failure to follow General Order 6.100 C. 6 meant PGL [REDACTED]  
142 [REDACTED]. In fact,  
143 that failure allowed the service line to be installed inside the sewer line. And the  
144 failure to [REDACTED] between the utility facilities  
145 prohibited the safe operation of the sewer cleanout auger; if PGL had followed  
146 General Order 6.100 C.6, then the resident could have used the sewer auger  
147 without damaging the natural gas service piping.

148 **Q. Why is it important to leave sufficient separation between the two utilities**  
149 **to allow for maintenance operations?**

150 **A.** Without sufficient clearance to perform maintenance activities, any maintenance  
151 activity performed on one utility's facilities could result in catastrophic damages to  
152 one or both utility's facilities and associated structures, which could potentially  
153 endanger the safety of nearby citizens and structures.

154 **Q. Was catastrophic damage to the natural gas service pipe caused in this**  
155 **instance, and, if so, what was the nature of this damage?**

156 **A.** Yes, in the case of 6652 S. Keating Avenue, a sewer cleanout auger was used to  
157 perform routine cleanout maintenance on the clay sewer piping exiting the crawl  
158 space of the residence. Since the natural gas service pipe was inside the sewer  
159 lateral, the auger came into contact with the service pipe, resulting in  
160 catastrophic damage to the natural gas pipeline, which released natural gas into  
161 the sewer lateral. The released natural gas then followed the sewer lateral into  
162 the residence, permitting an accumulation of a hazardous mixture of natural gas  
163 and air in the structure. That hazardous mixture then found an ignition source,  
164 and resulted in an explosion. The explosion resulted in two injuries, one of them  
165 critical, and catastrophic damage to both that residence and the surrounding  
166 neighborhood.

167 **Q. Would following the applicable PGL procedure have prevented the**  
168 **incident?**

169 **A.** Yes. If PGL would have [REDACTED] as prescribed  
170 by their procedure, it would have discovered that the boring rod had entered the  
171 sewer lateral, and that bore path would not have been used for the service line  
172 installation.

173 **Q. Was PGL notified of the violation?**

174 **A.** Yes, a notice of Probable Violation was issued to PGL on November 21, 2011.  
175 (Staff Ex. C)

176 **Q. Has PGL made a good faith effort to correct the violation?**

177 **A.** Yes. Even prior to the incident, PGL had procedures in place to avoid installing  
178 natural gas piping inside or through sewer piping. After the incident, PGL  
179 [REDACTED]  
180 [REDACTED]  
181 [REDACTED]  
182 [REDACTED]  
183 [REDACTED].



184 In addition to the its more general response of [REDACTED]  
185 [REDACTED], PGL also [REDACTED]  
186 [REDACTED]  
187 [REDACTED]. [REDACTED]  
188 [REDACTED]  
189 [REDACTED]. [REDACTED]  
190 [REDACTED]  
191 [REDACTED].

192 PGL has also [REDACTED]  
193 [REDACTED]. PGL Plan General Order 0.801  
194 implemented 2-10-2012 includes [REDACTED]  
195 [REDACTED]  
196 [REDACTED]. PGL will now [REDACTED]  
197 [REDACTED]  
198 [REDACTED]  
199 [REDACTED]  
200 [REDACTED]. Prior to implementation of General Order 0.801, PGL [REDACTED]  
201 [REDACTED]  
202 [REDACTED].  
203 [REDACTED]  
204 [REDACTED]  
205 [REDACTED]  
206 [REDACTED]  
207 [REDACTED]  
208 [REDACTED]  
209 [REDACTED]  
210 [REDACTED]  
211 [REDACTED].

212 Q. Please summarize your testimony thus far.

213 **A.** On May 8, 2007, while performing a gas service line replacement, PGL  
214 employees installed a PE service line at 6652 S. Keating Avenue in Chicago,  
215 Illinois. The service line breached the sewer lateral at 6652 S. Keating Avenue  
216 and ran inside the lateral for approximately ten feet, eight inches. On November  
217 13, 2011, the resident of 6652 S. Keating Avenue, while performing routine  
218 sewer maintenance, contacted and severed the service line. Natural gas  
219 migrated to the interior of the residence, reached an explosive level, and came  
220 into contact with a source of ignition. The ignition resulted in an explosion that  
221 injured both residents, one of whom was critically injured, and required both to be  
222 hospitalized. The explosion also destroyed that house, and damaged  
223 neighboring houses.

224 **Q. What penalties may be assessed against PGL?**

225 **A.** 49 U.S.C. § 60122, adopted by Section 7 of the Illinois Act,<sup>11</sup> allows for civil  
226 penalties of not more than \$200,000 for each violation, and a maximum penalty  
227 of \$2,000,000. Both the Illinois and the federal statute state that each day the  
228 violation persists is a separate violation.<sup>12</sup>

229 **Q. In this case what would be considered a violation?**

230 **A.** PGL failed to follow General Order 6.100 C.5 and C.6 while installing the service  
231 line to 6652 S. Keating Avenue. That failure to follow these company procedures  
232 is a violation of 49 CFR § 192.13(c).

233 **Q. What do you consider an appropriate penalty, considering the gravity of**  
234 **this situation?**

235 **A.** Considering the damage to human life and property that resulted from the failure  
236 to follow company procedures during the installation of the service piping, Staff

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<sup>11</sup> See 220 ILCS 20/7.

<sup>12</sup> 49 U.S.C. § 60122(a); 220 ILCS 20/7(a).

237 would normally recommend the maximum penalty for one violation,<sup>13</sup> \$200,000,  
238 be imposed for the violation of 49 C.F.R. §192.13(c). However, due to PGL's  
239 subsequent good faith efforts involving investigation and remediation of other  
240 breached sewer laterals in the project area, Staff recommends that the  
241 Commission should assess a civil penalty of \$100,000.

242 **Q. Does this conclude your testimony?**

243 **A.** Yes, it does.

244 Staff Ex. A: Staff Report

245 Staff Ex. B: Peoples General Order 6.100. Containing both 6.100 C. 5 and 6.100 C. 6.

246 Staff Ex. C: NOPV Letter

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<sup>13</sup> PGL was aware of this violation for only one day, and discontinued service for the affected address on the day it was discovered.